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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/522,414	01/26/2005	Nicolas Eches	CELA:132	5549
27890 7590 01/23/2007 STEPTOE & JOHNSON LLP 1330 CONNECTICUT AVENUE, N.W. WASHINGTON, DC 20036			EXAMINER CLEMENT, MICHELLE RENEE	
			ART UNIT 3641	PAPER NUMBER
SHORTENED STATUTORY PERIOD OF RESPONSE 3 MONTHS		MAIL DATE 01/23/2007	DELIVERY MODE PAPER	

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

## Office Action Summary

**Application No.**

10/522,414

**Applicant(s)**

ECHES ET AL.

**Examiner**

Michelle (Shelley) Clement

**Art Unit**

3641

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 13 November 2006.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) 3, 11-15 and 17 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) 1, 2, 4-10 and 16 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |                                                                                                                       |                                                                                         |
|-----------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                           | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                  | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____                                                |

## **DETAILED ACTION**

### ***Election/Restrictions***

1. Applicant's election with traverse of species a and c in the reply filed on 11/13/06 is acknowledged. The traversal is on the ground(s) that the examiner has not fulfilled the requirement as set forth in MPEP 803. This is not found persuasive because applicant's argument that the examiner must show serious burden as set forth in MPEP 803 is inappropriate for a species restriction. MPEP 802.02 defines three separate types of restriction requirements; distinct inventions, independent inventions, and election of species. The requirements for demonstrating a distinct or independent invention are not required for an election of species. The requirements for making an election of species are found in MPEP 808.01(a) and 809.02(a). Furthermore, the distinct species do require distinct and different searches since there is nothing on the record to show that the species are obvious variants of one another. Applicant is reminded that upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which depend from or otherwise require all the limitations of an allowable generic claim as provided by 37 CFR 1.141. If claims are added after the election, applicant must indicate which are readable upon the elected species. MPEP § 809.02(a). The requirement is still deemed proper and is therefore made FINAL.

### ***Specification***

2. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Where the written description only implicitly or inherently sets forth the structure, materials, or acts corresponding to a means-plus-function, applicant must clarify the disclosure to explicitly state, with reference

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to the terms and phrases of the claim element, what structure, materials, or acts perform the function recited in the claim elements and equivalents thereof. (See MPEP 2181). Correction of the following is required: applicant must clarify the disclosure to explicitly state, with reference to the terms and phrases of the claim element, what structure, materials, or acts perform the means to allow the skirts friction-type connection with the sub-band recited in the claim elements and equivalents thereof.

***Claim Rejections - 35 USC § 112***

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 4-10 and 16 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 4 recites the limitation "the internal collar of the skirt". The claim is unclear in that an internal collar of the skirt has not been previously cited. Claims 5 and 8-10 each recites the limitation "the caliber", "over-caliber", "sub-caliber", and "full-caliber", it is unclear which caliber is being referred to in that no caliber has not been previously cited and there are several possible calibers that could be intended. Claim 6 recites the limitation "at the level of each of its lateral edges", applicant has not previously cited that the sub-band sector has a lateral edge, much less what constitutes "at the level of". Claim 7 contains the term "deflecting" inside parentheses; it is not clear whether this term is intended as part of the claim limitations.

*Claim Rejections - 35 USC § 102*

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. Claims 1, 2, 4, 8-10 and 16 are rejected under 35 U.S.C. 102(b) as being anticipated by Campoli (US Patent # 4,444,113). Campoli discloses a sealing band for a projectile, the band comprising a front sub-band comprising at least two sectors (reference 66, 58), the sub-band having at least a conical profile for tightly fitting with the matching profile of a groove of a projectile, the cone tip being locatable towards a rear section of such a projectile (Figure 1), with the sub-band attachable to such a projectile by a cylindrical skirt (reference 22). The sealing band having a layer of sealing material placed at the rear of the sub-band (reference 38). The skirt of the band is over-caliber at the level of a rear section and comprising a frontal section of sub-caliber dimension. Campoli further discloses an arrow projectile comprising a sub-caliber core (reference 12) held by a sabot (reference 20) having full caliber and comprising segments, the projectile having a band and characterized in that the sabot has a pusher plate located axially forward of a transversal plane passing through the center of gravity of the complete projectile, the pusher plate having at least one circumferential groove for receiving the sub-band (See summary of the invention). Campoli further discloses ammunition consisting of a casing

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enclosing a propellant charge and including such a projectile, the ammunition characterized in that the skirt of the band is attached to a fastening ring fixed at the casing (reference 50).

***Claim Rejections - 35 USC § 103***

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 5-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Campoli as applied to claim 1 above, and further in view of Gotz et al. (US Patent # 4,833,995). Although Campoli does not expressly disclose the sub-band having at least one indentation to cooperate with a corresponding indentation of a neighboring sector so as to form a sealing deflecting plate for propellant gases and a flexible sealing material placed in the deflecting plates, Gotz et al. does. Gotz et al. teaches a guide band formed in segments and having indentations to cooperate with corresponding indentations of a neighboring sector to form a sealing deflecting plate and a flexible sealing material placed in the deflecting plates in order to simplify construction and create a seal for propellant gases. Campoli and Gotz et al. are analogous art because they are from the same field of endeavor: sabotted projectiles. It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the indentations for corresponding sectors and sealing material as suggested by Gotz et al. with the sealing band and projectile as taught by Campoli. The suggestion/motivation for doing so would have been to obtain a sealing band that would be easy to manufacture. Campoli and Gotz et al. disclose the claimed invention except for the skirt specifically having a length between 50% and 80% of the

caliber. Therefor, it would have been obvious to one of ordinary skill in the art at the time the invention was made to make the skirt within the specified range, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art and applicant hasn't disclosed that the specified range solves any stated problem or is for any particular purpose. *In re Aller*, 105 USPQ 233.

### ***Conclusion***

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michelle (Shelley) Clement whose telephone number is 571.272.6884. The examiner can normally be reached on Monday thru Thursday 9-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Carone can be reached on 571.272.6873. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

  
MICHELLE CLEARY  
PRIMARY EXAMINER